

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) ~~Modulation scheme~~ A method for modulating a NRZ non-return to zero (NRZ) signal transmitted via a DWDM transmission line with to a receiver utilizing alternating left side and right side filtering for adjacent channels at the receiver having alternating channel spacing, the method comprising:

[[•]] ~~Having channels with alternating channel spacing of A and B~~

[[•]] ~~Having~~ modulating channels for which are to be subjected to the right side filtering being modulated by using a modulator with a positive chirp; and

[[•]] ~~Having~~ modulating channels for which are to be subjected to the left side filtering being modulated by using a modulator with a negative chirp.

2. (Currently Amended) ~~Modulation scheme~~ The method according to claim (1-) 1, ~~characterized in that the~~ wherein at the receiver, central frequencies of two consecutive filters (whether left side or right side) , whether left-side or right-side, are equidistant in the frequency domain.

3. (Currently Amended) ~~Transmission~~ A transmission system with comprising a transmitter function, a transmitting fiber and a receiver function;

[[• The]] the transmitter function comprising a plurality of light sources [(1)] for generating a plurality of channels, a plurality of modulators [(2)] for modulating the channels, and a multiplexer [(3)] for multiplexing the channels which have been modulated,

[[•The]] the receiver comprising at least a first demultiplexer [(5)] for demultiplexing the channels which have been multiplexed, a plurality of filters for left-side and right side filtering the channels which have been demultiplexed, and a plurality of receivers for receiving the channels which have been filtered,

[[•]] Modulating the wherein the modulators of the transmitter modulate channels [(for)] which are to be subjected to the left side filtering with modulators with a negative chirp and [(for)] modulate channels which are to be subjected to the right side filtering with modulator with a positive chirp.

4. (Currently Amended) ~~Transmission~~ A transmission system according to claim [(2)] 3 comprising a receiver function a , wherein the first demultiplexer (5) for demultiplexing demultiplexes the channels to be filtered left side to be subjected to the left side filtering from the channels to be filtered right side, subjected to the right side filtering,
wherein the receiver further comprises:

[[•]] Connecting the channels to be filtered by left side filtering with a compensating fiber piece of positive chromatic dispersion [(8)] which receives the channels subjected to the left side filtering; and

[[• And]] a second demultiplexer ~~[[9]]~~ for demultiplexing ~~all channels~~ the channels subjected to the left side filtering which are transmitted through the compensating filter and the channels subjected to the right side filtering.

5. (Currently Amended) ~~Transmission~~ A transmission system according to claim ~~[[2]] 3 comprising at the receiver function a~~ , wherein the first demultiplexer ~~(5) for demultiplexing~~ demultiplexes the channels to be ~~filtered~~ subjected to the left side filtering from the channels to be ~~filtered~~ subjected to the right side filtering,

wherein the receiver further comprises:

[[•]] ~~Connecting the channels to be filtered by right side filtering with a compensating fiber piece of negative chromatic dispersion (8) (e.g. DCF)~~ which receives the channels subjected to the right side filtering; and

[[• And]] a second demultiplexer (9) for demultiplexing ~~all channels~~ the channels subjected to the right side filtering which are transmitted through the compensating filter and the channels subjected to the right side filtering.